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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,279	12/07/2001	Donald Charles Mills		6057

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Donald C. Mills
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Bedford, NH 03110

EXAMINER

NGUYEN, HUY D

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 06/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/017,279

Applicant(s)

MILLS, DONALD CHARLES

Examiner

Huy D Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Fig. 2c is not mentioned in the "Brief Description of The Drawings" section. Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 5-7, 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Reudink et al. (U.S. Patent No. 5,884,147).

Regarding claims 1, 6, Reudink et al. teaches a method for dynamically allocating a plurality of wireless channel sets within a served area which is responsive to subscriber traffic loading on said channel sets, each of said channel sets providing wireless communication services to subscribers to one or more wireless service providers, said method consisting of the steps of: providing a means of estimating the subscriber traffic loading on each of said channel sets without direct interface to at least one wireless communications service network (col. 9, lines 21-32, Fig. 5), and providing a means to determine if more efficient use of said channel sets can be made by redistributing said channel sets among radiating elements in said served area, and providing a means to control the distribution of said channel sets among said radiating elements in said served area (col. 9, line 33 – col. 10, line 5).

Regarding claims 2, 5, Reudink et al. teaches the method of claim 1, wherein said means of estimating said subscriber traffic loading of one or more of said channel sets is derived from the measurement of radio frequency signal strength of said channel sets (col. 9, lines 25-30).

Regarding claim 7, Reudink et al. teaches the method of claim 1, wherein said means to determine if more efficient use of said channel sets can be made incorporates non-real-time considerations (col. 9, lines 33-46).

Regarding claim 9, Reudink et al. teaches the method of claim 1, wherein said means to determine if more efficient use of said channel sets can be made includes a prediction based on history of said subscriber traffic loading (col. 7, lines 30-35).

Regarding claim 10, Reudink et al. teaches the method of claim 1, wherein said means of redistribution of said channel sets performs switching of radio frequency signal paths (col. 9, lines 25-36).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-5, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reudink et al. (U.S. Patent No. 5,884,147).

Regarding claim 3, Reudink et al. teaches the claimed invention except that means of estimating said subscriber traffic loading of one or more of said channel sets is derived from the measurement of optical signal strength of said channel sets. However, it would have an obvious matter of design choice to estimate said subscriber traffic loading of one or more of said channel sets from the measurement of optical signal strength since it doesn't solve any particular problem and the invention appears to perform equally well.

Regarding claim 4, Reudink et al. teaches the claimed invention except that means of estimating said subscriber traffic loading of one or more of said channel sets is derived from monitoring a digital representation of the waveform of said channel sets. However, it would have an obvious matter of design choice to estimate said subscriber traffic loading of one or more of said channel sets from monitoring a digital representation of the waveform of said channel sets since it doesn't solve any particular problem and the invention appears to perform equally well.

Regarding claim 11, Reudink et al. teaches the claimed invention except that means of redistribution of said channel sets performs switching of optical signal paths. However, it would

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have an obvious matter of design choice to have means of redistribution of said channel sets performs switching of optical signal paths since it doesn't solve any particular problem and the invention appears to perform equally well.

Regarding claim 12, Reudink et al. teaches the claimed invention except that means of redistribution of said channel sets performs switching of digital signal paths.. However, it would have an obvious matter of design choice to have means of redistribution of said channel sets performs switching of digital signal paths since it doesn't solve any particular problem and the invention appears to perform equally well.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reudink et al. (U.S. Patent No. 5,884,147) in view of Voyer (U.S. Patent No. 6,714,788).

Regarding claim 8, Reudink et al. teaches the claimed invention except that means to determine if more efficient use of said channel sets can be made includes hysteresis. Voyer teaches hysteresis is used to limit the "ping-pong" effect (col. 1, lines 61-62). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Voyer to the teaching of Reudink et al. to limit the "ping-pong" effect therefore improve the system stability.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Eswara et al. (U.S. Patent No. 6,597,927).

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- Salanaho et al. (U.S. Patent No. 6,317,600).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huy D Nguyen whose telephone number is 703-305-3283. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Erika A Gary can be reached on 703-308-0123. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HJ
06/18/04


ERIKA GARY
PATENT EXAMINER